[0015] – Rainey, Mark

[0016] – Rea, Stacy

[0017] After entering the next letter, "A", Stacy Rea's name would be filtered out (since it does not begin with "RA"), leaving:

[0018] – Rafferty, Janine

[0019] – Raiklen, Bill

[0020] – Rainey, Mark

[0021] After entering the next letter, "I", Janine Rafferty's name would be filtered out (since it does not begin with "RAI"), leaving:

[0022] – Raiklen, Bill

[0023] – Rainey, Mark

[0024] Finally, after entering the next letter, K, Mark Rainey's name would be filtered out, so that only Bill Raiklen's name remains. At this point, the directory record for Bill Raiklen could automatically be retrieved or his name automatically selected. Thus, the user is able to specify one of the listed directory records with a minimum of keystrokes. The user need not enter the remaining letters in Bill Raiklen's name, since the system is now able to determine which directory entry the user is attempting to specify, even though only four keystrokes have been entered.

[0025] One limitation of the above-described conventional technique is that the user can only search on one field, in this case the last name. In general, in such iterative filtering operations as provided in the art, filtering is performed

with respect to a predefined field (such as last name). Thus, if the user attempts to locate a record by entering keystrokes for a different field (such as first name, for example), the user may fail to retrieve the intended record. Conventional iterative filtering techniques do not generally provide a mechanism for concurrently filtering a directory according to the user's entries as compared with two or more directory fields.

[0026] In addition to retrieving records from an electronic directory, many users often dial numbers directly into the device. For example, if a user of a cellular telephone wishes to call someone who is not listed in the user's directory, the user may dial the person's number via a keypad on the telephone. Typically, such an operation is performed in a different mode than the directory lookup mode, so that there is no ambiguity as to which type of operation (directory lookup or direct-dial) the user wishes to perform. Usually, the user must explicitly select which mode is desired, by navigating through displayed menus or by executing commands in accordance with the user interface of the device.

[0027] In many handheld devices, multiple-value keys are provided, so as to save space and reduce the total number of keys. For example, some keys may correspond to a numeric value as well as an alphabetic value. Depending on the current mode of operation, pressing the key results in entry of either the numeric value or the alphabetic value. Thus, a dialing mode may be provided for direct entry of a telephone number to be dialed, and a directory retrieval mode may also be provided for retrieving directory records. Both operations may use the

same keys; thus, a particular key may have a numeric value for use in the dialing mode and an alphabetic value for use in the directory retrieval mode.

[0028]   It is often important that tasks such as dialing numbers or locating a particular contact record be as easy as possible to carry out. Many such hand-held devices are used in environments where the user's ability to concentrate on the task of retrieving a directory record is limited, or where the user is attempting to perform such a task while concurrently performing other tasks. Accordingly, it is advantageous for electronic directories to be easily navigated and for records to be easily retrieved.

[0029]   Requiring explicit selection of a mode can make the device cumbersome and difficult for users to operate. In many environments, users are not familiar with the mode selection requirement, or are operating the device while driving, or are otherwise unable to explicitly select a mode before performing an operation on the device.

[0030]   What is needed, therefore, is a system, method, and user interface that allows a user to perform any of a plurality of operations, including directory retrieval and direct-dialing, on a device having multiple-value keys, without having to specify a mode before beginning the desired operation. What is further needed is a system, method, and user interface that performs iterative filtering of a directory concurrently with accepting keystrokes for a direct-dial operation. What is further needed is a system, method, and user interface that automatically determines which operation the user intends, so that the user is not required to